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MCCLOUD, RENATA D	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/973,338
Filing Date: October 09, 2001
Appellant(s): SCHOTT, WAYNE MILTON

Steven R. Peterson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 28 November 2005 appealing from the Office action mailed 24 November 2004.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,437,539	Festa	3-1984
5,850,460	Tanaka et al	12-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Festa (US 4,437,539).

Claim 1: An acoustical enclosure comprising: a speaker box (Fig. 1: 12) comprising walls (Fig. 1-2: 14,16,18, 20, 26, 28) that enclose an acoustic chamber; a partitioning wall (Fig. 2:30) coupled to interior surfaces of said walls of said speaker box, said partitioning wall dividing said acoustic chamber into a first chamber (Fig. 2:34) and into a second chamber (Fig. 2: chamber adjacent to 20); wherein at least one wall (Fig. 2: 28) of said walls that enclose said acoustic chamber comprises portions that form an external vent (Fig. 2: 40) to said second chamber (chamber adjacent to 20); a first speaker (Fig. 2: 35 is the speaker within opening 36) mounted within said partitioning wall (30), wherein a front portion of said first speaker (35) has access to said first chamber (34) and a back portion of said first speaker (35) has access to said second chamber (chamber adjacent to 20); and a second speaker mounted (Fig. 2: 50) within one of said walls (26) that enclose said acoustic chamber, wherein a front portion of said second speaker (50) has access to air outside said speaker box and a back portion of said second speaker (50) has access to said first chamber (34).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tanaka et al (US 5,850,460).

Claim 1: An acoustical enclosure comprising: a speaker box (Fig. 15: 103) comprising walls that enclose an acoustic chamber (Fig. 15:106,105); a partitioning wall (Fig. 15:104) coupled to interior surfaces of said walls of said speaker box, said partitioning wall (104) dividing said acoustic chamber into a first chamber (106) and into a second chamber (105); a first speaker (101) mounted within said partitioning wall (104), wherein a front portion of said first speaker (front of 101) has access to said first chamber (106) and a back portion of said first speaker (back of 101) has access to said second chamber (105), and a second speaker (102) mounted within one of said walls (Fig. 15: 103a) that enclose said acoustic chamber, wherein a front portion of said second speaker (front of 102) has access to air outside said speaker box (103) and a back portion of said second speaker (back of 102) has access to said first chamber (106).

Tanaka et al do not explicitly disclose at least one wall that enclose the acoustic chamber comprises portions that form an external vent to said second chamber. Tanaka et al teaches that it would be obvious to one having ordinary skill in the art at the time the invention was made to form an external vent (Col. 7:60-8:2, a port in a wall that has no driver) to said second chamber (105), the vent being in at least one wall of the walls (Fig. 15: back wall

adjacent to 105) that enclose said acoustic chamber. The advantage of this would be reduced vibrations in the enclosure.

Claims 9 and 11: An acoustical enclosure comprising: a speaker box (Fig. 15: 103) comprising walls that enclose an acoustic chamber (Fig. 15:106,105); a partitioning wall (Fig. 15:104) coupled to interior surfaces of said walls of said speaker box, said partitioning wall (104) dividing said acoustic chamber into a first chamber (106) and into a second chamber (105); wherein at least one wall of said walls (Fig. 15: back wall adjacent to 105) that enclose said acoustic chamber comprises portions that form an external vent (Col. 7:60-8:2, a port in a wall that has no driver) to said second chamber (105); a first speaker (101) mounted within said partitioning wall (104), wherein a front portion of said first speaker (front of 101) has access to said first chamber(106) and a back portion of said first speaker (back of 101) has access to said second chamber (105), and a second speaker (102) mounted within one of said walls (Fig. 15: 103a) that enclose said acoustic chamber, wherein a front portion of said second speaker (front of 102) has access to air outside said speaker box (103) and a back portion of said second speaker (back of 102) has access to said first chamber (106); wherein second speaker (102) enhances acoustical performance of said acoustic chamber of said acoustical enclosure by extending a range of low frequency response of said acoustical enclosure to approximately thirty Hertz (Col. 2:12-20; Col. 2:42-45; Fig. 3 shows a frequency range starting at 20 Hz).

Tanaka et al do not explicitly disclose at least one wall that enclose the acoustic chamber comprises portions that form an external vent to said second chamber. Tanaka et al teaches that it would be obvious to one having ordinary skill in the art at the time the invention was made to form an external vent (Col. 7:60-8:2, a port in a wall that has no driver) to said second chamber (105), the vent being in at least one wall of the walls (Fig. 15: back wall

adjacent to 105) that enclose said acoustic chamber. The advantage of this would be reduced vibrations in the enclosure.

Claims 2, 4, 6, 8, 10, 13, 15, 16, 18, and 20: partitioning wall (104) comprises portions that form an uncovered internal vent (Col. 7:60-8:2, a port in a divider) between said first chamber (106) and said second chamber (105).

Claims 3, 12, and 19: said first speaker (101) and said second speaker (102) are connected in phase electrically (Col. 1:65-2:12; Col. 6:35-42).

Claims 5, 14, and 17: a volume of said first chamber (106) is effectively increased due to the presence of said second speaker (102) within one of said walls (103a) that enclose said acoustic chamber (Col. 2:12-20).

Claim 7: a low frequency response range that extends to approximately thirty Hertz (Col. 2:42-45; Fig. 3 shows a frequency range starting at 20 Hz).

(10) Response to Argument

A. In response to Applicant's arguments with respect to Festa

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., bass speakers and bass response) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)

In response to applicant's argument that Festa does not teach a second speaker mounted within one of said walls that enclose said acoustic chamber, a back portion of said

second speaker has access to said first chamber, it is noted that the features upon which applicant relies (i.e., emanating sound entering into the first chamber) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Festa teaches a second speaker (Fig. 2: 50) mounted within one of the walls (Fig. 2:26) that enclose said acoustic chamber, wherein a front portion of the second speaker (50) has access to air outside said speaker box and a back portion of said second speaker (50) has access to said first chamber (34). Applicant's claim language is broad. The limitation "access", broadly, has several definitions including within, inside, entering, communicating, touching, and approaching. Festa clearly teaches, as seen in fig 2, that the back of the second speaker (50) is within, inside, communicating with, or touching the first chamber, and therefore has access to the first chamber.

B. In response to Applicant's arguments with respect to Tanaka

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "speaker" meaning electrostatic transducer) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993

In response to applicant's argument that Tanaka does not teach a "speaker" but instead teaches a passive radiator, it is noted that the features upon which applicant relies (i.e., "active speakers" and "electroacoustic transducer") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that Tanaka's passive radiator 102 does not satisfy applicant's claimed "second speaker", because (102) is passive, applicants claim language is broad. The term "speaker" means something that speaks. The term "speak", broadly, means to articulate or emit a sound or noise. The term radiator means something that radiates. Radiate means to send out or emit. Broadly, the limitations "radiator" and "speaker" are synonymous, as in, they both emit or send out something, which in this case is sound. Tanaka teaches a radiator having a vibration speed (see col. 1:65- 2:8), meaning that the radiator's sound has a speed or frequency. Speed or frequency means how often something occurs per unit of time. Since the passive radiator's sound has a speed, that means that sound is occurring and being emitted from the radiator. Tanaka teaches a passive radiator that emits noise in the form of bass sounds (see col.1: 42-51). Tanaka's "speaker" may passively emit sound, however, applicant has not further limited the claims to exclude passive transmission of sound. There is nothing in applicant's claim language that would preclude one having ordinary skill in the art from reading Tanaka as meeting the claimed limitation.

In response to applicant's argument that Tanaka does not teach the claimed external vent, Tanaka teaches that it would be obvious to alter the typical/conventional bandpass speaker (shown in fig. 15 as described in col. 1:39-51) by placing a port in a side wall to which no driver unit is installed (see col. 7:60-8:2). In fig. 15, the sidewall to which no driver unit is installed is the wall to the right hand side of the second chamber (105). It would have been obvious to one having ordinary skill in the art at the time the invention was made to place a port in that particular side wall. By placing a port in that side wall, an external vent is formed to the second chamber (105). The advantage of this would be an outlet for vibration to escape, thereby reducing unwanted vibration, such as rattling, within the speaker.

Also, in response to applicant's argument that Tanaka does not teach a vent between first and second chambers, Tanaka teaches that it would be obvious to form a port in a divider (104) placed between the two speakers (see Col. 7:60-8:2).

In response to applicant's argument that Tanaka does not teach the first and second speakers are connected in phase electrically since 102 is a passive radiator, Tanaka teaches, referring to Figs. 16-17, an electrical circuit diagram of how the two speakers are connected (col. 1:52-55). Tanaka even refers to this as the "electroacoustic equivalent circuit". The first speaker (101) and second speaker (102) are connected in phase and since there is electricity going through at least one of the speakers (the first speaker (101)), the speakers are connected in phase electrically. Applicant's claim language is broad and does not further limit the invention to both speakers being driven electrically.

In response to Applicant's argument that Tanaka does not have motivation to provide vents to reduce vibration, Tanaka teaches variations of the conventional bandpass speaker shown in Fig. 15. Such variations include those disclosed in col. 7:60-8:2. Tanaka teaches that the conventional speaker has the drawback of unwanted vibration and resonance (see col. 1:26-30) and that the reason for altering the conventional speaker is to reduce this unwanted vibration and resonance (col. 3:61-67). Therefore Tanaka teaches altering a conventional bandpass speaker by adding ports in order to reduce vibration, and has motivation for doing such. By adding ports to the speaker box, air is allowed to escape the box, thereby reducing pressure within the box. By reducing pressure, vibration is reduced. An example of how this works would be a pot of boiling water with a lid on it. As the water boils, steam is being built up and is trying to escape the pot. Since the lid is on the pot, the steam has a hard time escaping. This results the water over boiling out of the pot causing the lid to rattle. Now, if the water were

left to boil in a pot with a lid having a vent hole, the steam would have a means to escape, thereby preventing over boiling and reducing the lid rattling.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Renata McCloud

Conferees:

David Martin

Darren Schuberg